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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/815,794 | 04/02/2004 | Chiaki Hamada | 119334 | 9940 |
| 25944 | 7590 | 12/12/2006 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | BURCH, MELODY M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3683 | |

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/815,794 | Applicant(s) HAMADA ET AL. | |
| | Examiner Melody M. Burch | Art Unit 3683 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ 5) <input type="checkbox"/> Notice of Informal Patent Application 6) <input type="checkbox"/> Other: _____ |
|---|--|

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: the phrase "the wheels" should be changed to --the front wheels-- for clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6385523 to Yokoyama et al. in view of JP-200237044 (using US Patent 6595600 to Banno et al. as an English equivalent).

Re: claims 1-9 and 11-13. Yokoyama et al. disclose a device for controlling braking force of a vehicle having front and rear wheels shown in figure 2 and braking force generating apparatuses provided for each of the wheels shown in figure 2, the device executing braking force distribution control operation that affects a braking force on the rear wheels, generated by the braking force generating apparatus of the rear wheels, to provide a braking force distribution among the front and rear wheels, biased to the front wheels, under a predetermined condition, wherein as the front wheel braking force increases during execution of the braking force distribution control operation, the

device controls the braking force generating apparatuses of the front wheels to increment the front wheel braking force beyond the braking force increase by an amount based on an affected amount of the braking force on the rear wheels as disclosed in col. 2 line 65 – col. 3 line 11 and as shown in figure 6 with the difference between the curve for Pfs and Pfe.

Yokoyama et al. disclose in col. 2 lines 66-67 that the reduction of the front wheel speed became greater than the reduction of the rear wheel speed upon the initiation of front-rear braking force distribution, but Yokoyama et al. are silent as to how the difference in the reduction of front and rear wheel speed was achieved.

Banno et al. teach in col. 8 line 64 – col. 9 line 5 the use of restricting an increase of braking in the rear wheels upon initiation of front-rear braking force distribution.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the front-rear braking force distribution device of Yokoyama et al. to have included affecting a braking force on the rear wheels by restricting an increase of braking in the rear wheels, as taught by Banno et al., in order to provide a means of establishing the difference in reduction of wheel speed between the front and rear wheels to effectively achieve the front-rear braking force distribution.

Re: claim 10. Yokoyama et al., as modified, fail to specifically recite that the braking force increment on the front wheels are substantially equal to the restricted amount of the braking force on the rear wheels. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the braking force increment to have been equal to the restricted amount of the braking force since it

has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d, 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

4. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. Upon further review, Yokoyama et al., as modified, teach the claimed front-rear braking distribution control. See paragraph 5 above.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb

December 10, 2006

Melody M. Burch
Melody M. Burch
Primary Examiner
Art Unit 3683

12/10/06